

Test Report

Report Number: L25013

Date: Oct 7, 2025

Issued by:

Dialight Optics Laboratory
1501 Route 34 South, Farmingdale, NJ 07727

Test of one Area Light

Unit manufacturer: Dialight Corporation
Unit model number: ALU5AC2ADNNNGN

Issued to:

Dialight Corporation
1501 Route 34 South, Farmingdale, NJ 07727

Tests performed: Photometric characterization and temperature measurement per the described standards.

Dates of test: August 13, 2025 through October 6, 2025

Standards used: All tests are performed in accordance with procedures and guidelines prescribed by the American National Standards Institute (ANSI) or Illuminating Engineering Society of North America (IES):

- IES LM-79:2019: Optical and Electrical Measurements of Solid-State Lighting Products
- ANSI/UL 1598:2008: Underwriters Laboratories Inc. Standard for Safety: Luminaires

Description of sample:

Sample Number: L25013
Manufacturer: Dialight Corporation
Product Name: Area Light 11K
Description: Area Light
Model Number: ALU5AC2ADNNNGN

Report Summary

Sample number L25013
Dialight unit model number ALU5AC2ADNNGN

Photograph(s) of sample:



*Photographs not to scale. For reference only.

Summary of Results:

	<u>Integrating Sphere</u>	<u>Goniophotometer</u>
Luminous Flux:	10132 (lumens)	10261 (lumens)
Electrical Power:	74.3 (W)	73.5 (W)
Luminous Efficacy:	136.3 (lumens/W)	139.5 (lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (120VAC):	74.3 (W)
	Power Factor (120VAC):	0.9898
	Current ATHD % (120VAC):	10.65
Secondary Voltage:	Input Power (277VAC):	70.8 (W)
	Power Factor (277VAC):	0.9895
	Current ATHD % (277VAC):	7.94

Color Measurements:

Correlated Color Temperature (CCT):	5164 (K)
Color Rendering Index (CRI):	86.30
Chromaticity Coordinate (x):	0.341
Chromaticity Coordinate (y):	0.348
Chromaticity Coordinate (u'):	0.210
Chromaticity Coordinate (v'):	0.482
DUV:	-0.0002

Temperature Measurements:

In Situ LED Source Temperature:	61.9 (°C)
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Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L25013.

Dialight unit model number ALU5AC2ADNNGN

Test Conditions:

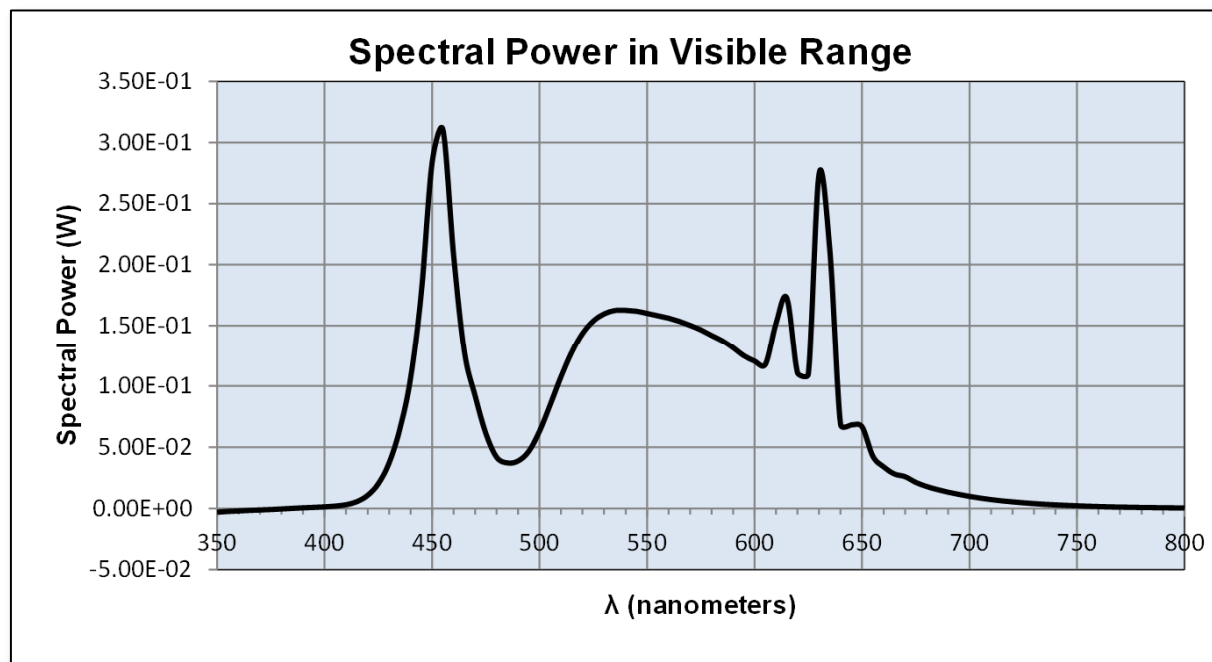
Ambient Temperature: 25 ± 1.2 (°C)
Ambient Relative Humidity: 10 to 65 (%RH)

Electrical Measurements:

Input Voltage: 120.9 (VAC)
Input Current: 0.621 (A)
Input Power: 74.3 (W)
Input Power Factor: 0.9898
Current ATHD: 10.65 (%)

Photometric measurements:

Luminous Flux: 10132.0 (lumens)
Luminous Efficacy: 136.3 (lumens/W)
Correlated Color Temperature (CCT): 5164 (K)
CRI -Ra: 86.30
CRI -R9: 60.52
DUV: -0.0002
CIE Coordinate (x): 0.341
CIE Coordinate (y): 0.348
CIE Coordinate (u'): 0.210
CIE Coordinate (v'): 0.482
TM30_Rf: 83.3
TM30_Rg: 100.9
TM30_Rcs_hue1: -6.81 %



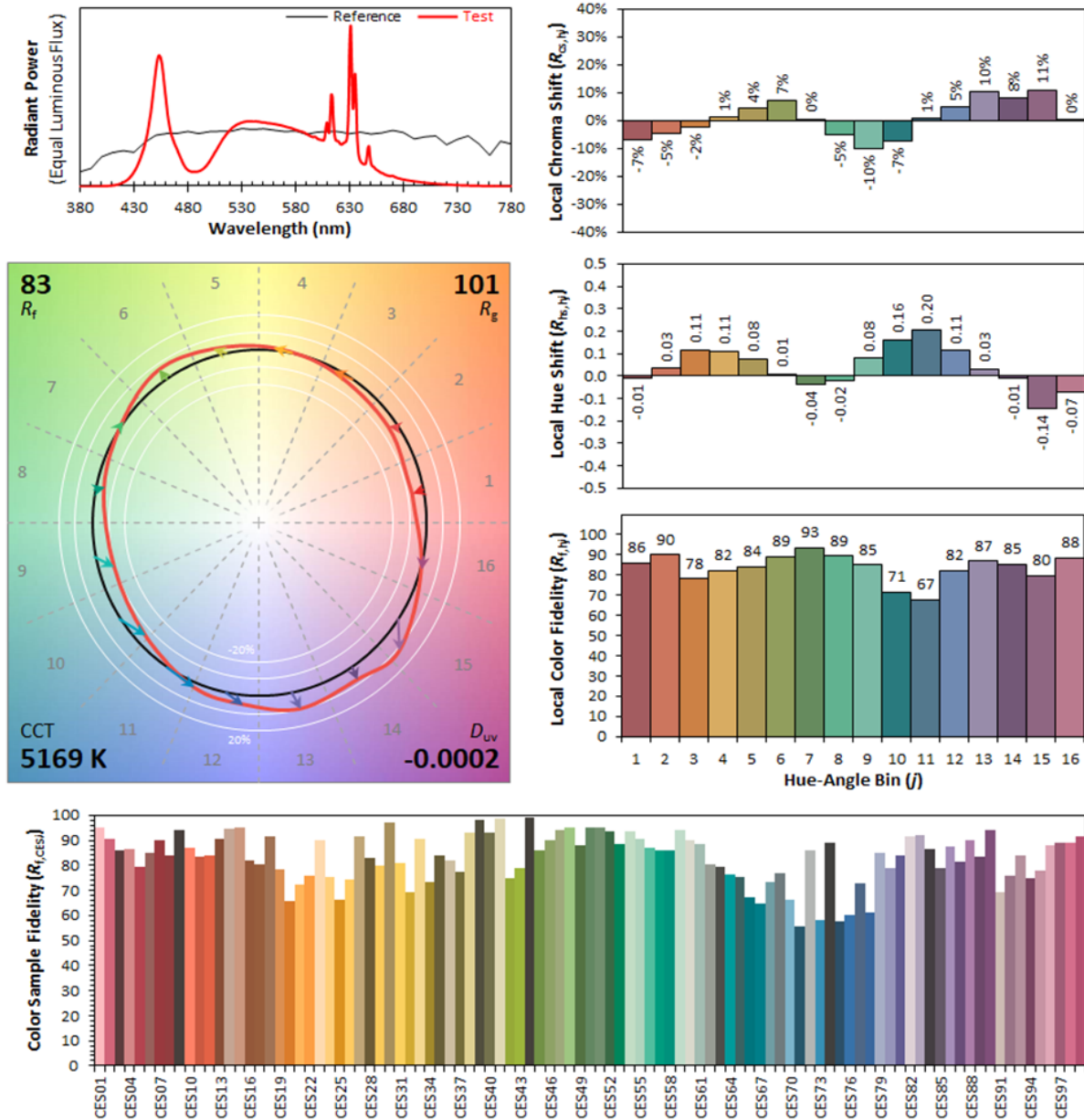
Test Results: Integrating Sphere

Results continued from previous page.

Tabulated Spectral Power in Visible Range:

$\lambda(\text{nm})$	(W/nm)	$\lambda(\text{nm})$	(W/nm)	$\lambda(\text{nm})$	(W/nm)	$\lambda(\text{nm})$	(W/nm)
350	-0.00307	490	0.03875	630	0.27465	770	0.00112
355	-0.00241	495	0.04673	635	0.21155	775	0.00098
360	-0.00203	500	0.06324	640	0.06825	780	0.00082
365	-0.00158	505	0.08508	645	0.06827	785	0.00069
370	-0.00122	510	0.10802	650	0.06667	790	0.00056
375	-0.00087	515	0.12814	655	0.04264	795	0.00047
380	-0.00040	520	0.14355	660	0.03401	800	0.00040
385	0.00009	525	0.15374	665	0.02816		
390	0.00053	530	0.15965	670	0.02599		
395	0.00090	535	0.16245	675	0.02127		
400	0.00131	540	0.16260	680	0.01793		
405	0.00192	545	0.16187	685	0.01542		
410	0.00306	550	0.16004	690	0.01326		
415	0.00553	555	0.15812	695	0.01148		
420	0.01066	560	0.15613	700	0.00981		
425	0.02026	565	0.15347	705	0.00844		
430	0.03720	570	0.15012	710	0.00724		
435	0.06495	575	0.14644	715	0.00620		
440	0.10677	580	0.14181	720	0.00537		
445	0.17745	585	0.13742	725	0.00462		
450	0.28391	590	0.13159	730	0.00396		
455	0.31066	595	0.12494	735	0.00338		
460	0.20768	600	0.12051	740	0.00289		
465	0.12812	605	0.11776	745	0.00249		
470	0.09201	610	0.15206	750	0.00214		
475	0.06121	615	0.17259	755	0.00182		
480	0.04187	620	0.11059	760	0.00155		
485	0.03721	625	0.10975	765	0.00131		

IES TM-30-18 Color Rendition Report



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.3405
 y 0.3476
 u' 0.2099
 v' 0.4820

CIE 13.3-1995
(CRI)

R_a 86
 R_g 60

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

Test Results: Goniometer

Results include unit flux, distribution, efficacy, and electrical power for sample number L25013.

Dialight unit model number ALU5AC2ADNNGN

Electrical Measurements:

Input Voltage:	120.5	(VAC)
Input current:	0.64	(A)
Input Power:	73.53	(W)
Power Factor:	0.9605	

Photometric measurements:

Absolute Luminous Flux:	10260.9	(lumens)
Luminous Efficacy:	139.5	(lumens/W)

BUG Rating: B3 - U0 - G1

Photometric Distribution Summary:

Candlepower Summary

H/V	0.00	45.00	90.00	135.00	180.00	Lumens
0.00	4965	4965	4965	4965	4965	
5.00	4935	4937	4961	4921	4872	499
15.00	4912	4843	4855	4437	3937	1285
25.00	5173	4819	4479	3255	1989	1762
35.00	5112	4723	3890	1650	563	1920
45.00	3757	4180	3243	568	227	1738
55.00	1808	2878	2471	220	190	1185
65.00	434	1184	1598	136	126	536
75.00	133	257	801	77	94	225
85.00	48	76	180	44	45	36
90.00	0	0	0	0	0	

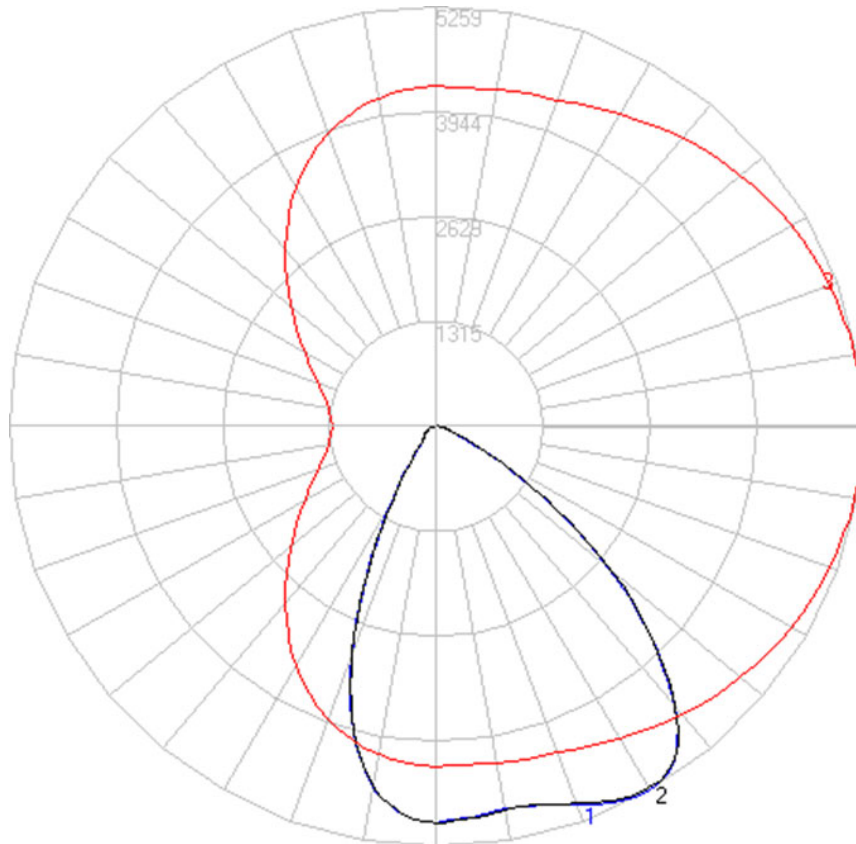
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0 to 30	3630.07	35.38	35.38
0 to 40	5683.35	55.39	55.39
0 to 60	9051.31	88.21	88.21
0 to 90	10260.88	100.00	100.00
90 to 180	0.00	0.00	0.00
0 to 180	10260.88	100.00	100.00

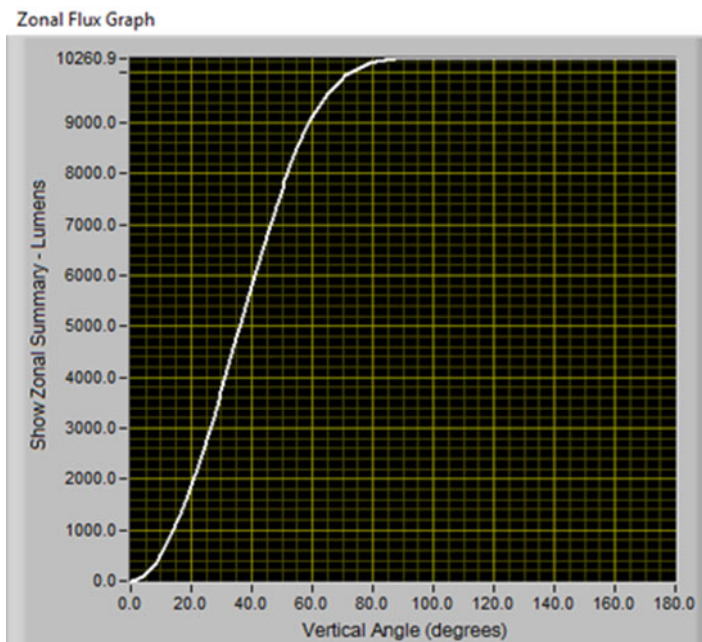
Test Results: Goniometer

Results continued from previous page.

Polar Plot:



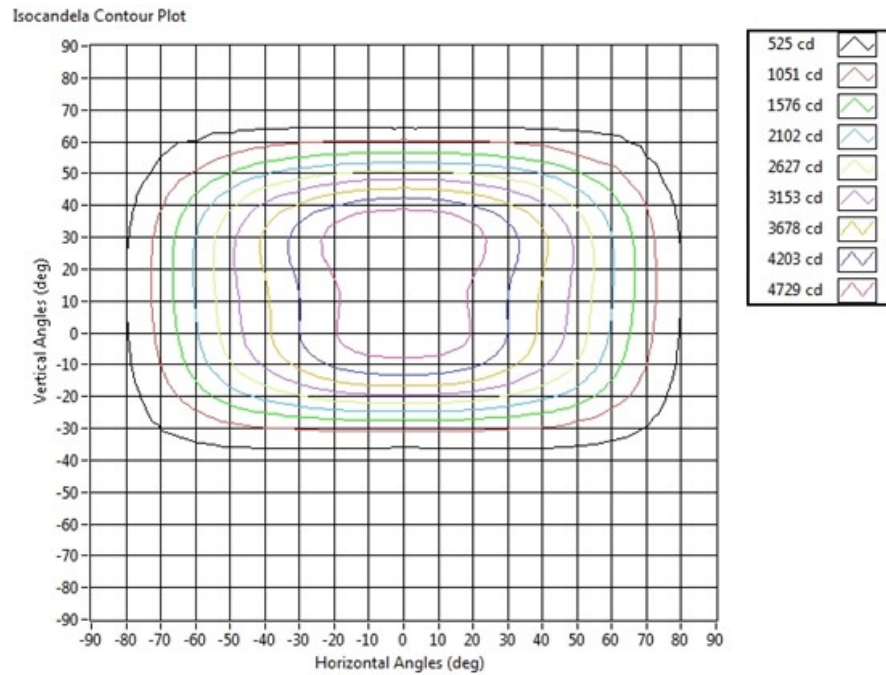
Zonal Flux:



Test Results: Goniometer

Results continued from previous page.

Illuminance Plot:



Illuminance-Cone of Light:

Mounting Height (ft)	Beam Cone Width (ft)	Orthogonal Beam Cone Width (ft)	Projected Illuminance (fc)
2	3.32	5.53	1241.3
4	6.64	11.06	310.3
6	9.96	16.59	137.9
8	13.27	22.13	77.6
10	16.59	27.66	49.7
12	19.91	33.19	34.5
14	23.23	38.72	25.3
16	26.55	44.25	19.4
18	29.87	49.78	15.3
20	33.19	55.32	12.4

Test Results: In Situ Temperature Measurement Test

Results include maximum LED chip temperature for sample number L25013.

Dialight unit model number ALU5AC2ADNNGN

LED identified as Nichia part number NF2W757HT-V2H5.

LED drive current (as indicated by customer): 115 (mA)

LED Specifications:

LED specifications are taken from LED manufacturer datasheet:

Maximum Forward Current (If):	180	(mA)
Maximum Rated Power Dissipation:	0.54	(W)
Maximum Junction Temp. (Tj):	120	(°C)
Thermal Resistance (Rth):	17	(°C/W)

Derived Specifications:

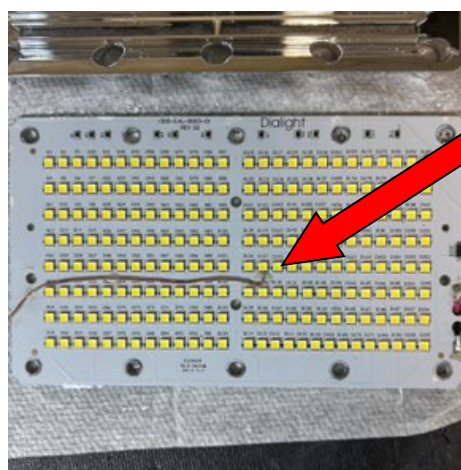
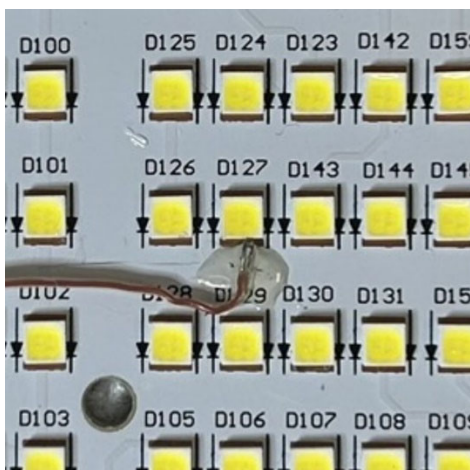
Maximum Power at Indicated Current:	0.345	(W)
Maximum Source Temperature:	114.135	(°C)

Test Conditions:

Temperature Measurement Location:	See Photographs Below
Ambient Temperature:	25° ± 5° (°C)
Ambient temperature at time of measurement:	22.7 (°C)
Relative humidity at time of measurement:	39%

Results:

Measured LED source temperature: 61.9 (°C)



Equipment Used:

Equipment Name	Model Number
Omega TC	DPI8
Type-C Moving Mirror Goniometer	6240T
Elgar AC Power Supply	CW1251P
Sorensen DC Power Supply	XHR150-7
Fluke 8808A Digit Multimeter	8808A
Step-Up Transformer	
Omega TC Meter	Dpi8-C24
Xitron Power Analyzer	XT2640
Omega Thermocouple	5TC-TT-K
Fluke 971 Humidity Meter	971
GwINSTEK DC Power Supply	GEP172679
Omega TC	TC-08
Labshere 2M sphere	Illumia Plus 2600-195
Labshere Controller	PM-150-140
Labshere Spectrometer- CDS 2600 Spectrometer	CDS-2600
Xitron Power Analyzer	XT2640
LPS-525 DC Power Supply	LPS-525
YOKOGAWA Digital Power Meter	WT310E
STS Luminous Intensity Standard Lamp for Type-C Cal	STD-EHD
STS Luminous Intensity Standard Lamp for Type-C Cal	STD-EHD
STS Luminous Intensity Standard Lamp for Type-C Cal	STD-EHD
Dialight Confirmation Sample	VEx7RB2Exxxxxx
LabSphere calibration lamp for 2M sphere	SCL-1400
LabSphere calibration lamp for 2M sphere	SCL-1400
LabSphere calibration lamp for 2M sphere	SCL-1400

Additional Notes:

Samples are received and tested in new and undamaged condition, unless otherwise noted.

The results shown in this report are representative only of the test samples submitted. This data has been issued to the assignee for further evaluation.

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Test Report Issued By:

Abriam Rodriguez
Dialight Optics Laboratory
Optics Lab Technician

Test Report Reviewed and Approved By:

Callan McCormick
Dialight Optics Laboratory
Optics Lab Engineer
Approved Signatory